

REMARKS

OVERVIEW

Claims 1-4 are pending in this application. The present response is an earnest effort to place all pending claims in form for allowance.

ISSUES UNDER 35 U.S.C. § 103

Claims 1-3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U. S. Patent No. 5,084,694 to Kikuchi et al., in view of U. S. Patent No. 5,929,746 to Edwards, Jr. et al. This rejection is respectfully traversed as Kikuchi does not disclose all that the Examiner purports that it does. In particular, the Examiner states that:

" Kikuchi et al disclose in fig. 1 a chip resistor comprising a substrate having opposite parallel symmetrical top and bottom surfaces, and a central longitudinal plane of symmetry; separate and spaced first and second resistive layers 2 or thin film resistive layers (as in claim 3) on the top and bottom surfaces, respectively, electrically connected in parallel to each other and the top and the bottom surfaces of the substrate being symmetrically located with respect to and equidistant from the central longitudinal plane so that when electrical current passes through the resistive layers, a temperature distribution within the substrate will be substantially symmetrical about the central longitudinal plane of the substrate for eliminating thermal bending thereof; wherein an area of the first resistive layer is substantially equal to that of the second resistive layer such that the chip resistor with both resistive layers tolerates higher instantaneous pulsed power than either layer could provide separately and individually; and first and second terminals 1C/3 for surface mounting, each terminal being electrically connected to the first and second resistive layers, the terminals being symmetrical about a central longitudinal plane, but do not specifically disclose a direct loading to a pick-and-place machine without concern for top-bottom orientation."
(Office Action, pages 2-3, numbered paragraph 3).

Claim 1 requires a "substrate having opposite parallel symmetrical top and bottom surfaces, and a central longitudinal plane of symmetry" and "separate and spaced first and second resistive layers on the top and bottom surfaces, respectively, electrically connected in parallel to each other." Kikuchi does not disclose this structure. Kikuchi is directed towards a detection

element that has a cylindrical ceramic substrate with a single cylindrical resistive layer on its external surface (Abstract; see Figure 2; note that Figure 1 is a sectional view). Therefore, Kikuchi cannot disclose "a substrate having opposite parallel symmetrical top and bottom surfaces" and does not disclose "separate and spaced first and second resistive layers on the top and bottom surfaces." Kikuchi discloses only a single resistive layer which is cylindrical in nature, and not two resistive layers s claimed. Being cylindrical in nature, Kikuchi also does not disclose "top and bottom surfaces" of the substrate. Therefore, it is respectfully submitted that these rejections should be withdrawn on that basis.

To further clarify, the limitation of "substantially flat" has been added to describe the shape of the substrate. This limitation further distinguishes over Kikuchi. Kikuchi discloses only a cylindrical substrate. It is further noted that because of these differences, Kikuchi does not disclose "top and bottom surfaces of a substrate being symmetrically located in respect to an equidistant from the central longitudinal planes so that when electrical current passes through the resistive layers, a temperature distribution within a substrate will be substantially symmetrical about the central longitudinal plane of the substrate for eliminating thermal bending thereof." Neither could Kikuchi disclose "wherein an area of the first resistive layer is substantially equal to an area of the second resistive layer such that the chip resistor with both resistive layers tolerates higher instantaneous pulsed power than either layer could provide separately and individually" or "each terminal being electrically connected to the first and second resistive layers". Kikuchi can not disclose these limitations because Kikuchi has the one cylindrical resistive layer. Kikuchi does not disclose all that the Examiner has purported that it does therefore it is respectfully requested that these rejections must be withdrawn. Moreover, claim 1 has been amended in a manner that further distinguishes over Kikuchi by requiring that the substrate be "substantially flat" which is not disclosed by Kikuchi's cylindrical body.

Edwards, Jr. does not remedy these deficiencies, for example, Edwards, Jr. discloses a substantially flat substrate, but does not disclose "separate and spaced first and second resistive layers on the top and bottom surfaces." The structure of Edwards, Jr. does not prevent "thermal

bending" or tolerate "higher instantaneous pulsed power." As no combination of these references disclose each and every limitation of claim 1, these rejections must be withdrawn. As claims 2-4 depend from claim 1, it is respectfully submitted that these rejections should also be withdrawn.

Further, the Examiner indicates that the motivation or suggestion to combine the references of Edwards, Jr. with Kikuchi would be to "accommodate surface mounted resistors with a minimum adjustment of the machine as taught by Edwards, Jr. et al." (Office Action, page 3, numbered paragraph 3). The Applicant respectfully disagrees:

Because Kikuchi is directed towards a resistor having a cylindrical body, it is not a surface mount resistor. Edwards discloses only that a pick and place machine is used to accommodate surface mount resistors (col. 1, line 16-21). Therefore, there is no motivation or suggestion to combine these references, and even if the references were combined they would not yield the Applicant's claimed invention. Therefore, for all these independent reasons, it is respectfully submitted that these rejections must be withdrawn and the Examiner should find all claims allowable.

CONCLUSION

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested

Respectfully submitted,

John D. Goodhue

JOHN D. GOODHUE, Reg. No. 47,603
McKEE, VOORHEES & SEASE, P.L.C.
801 Grand Avenue, Suite 3200
Des Moines, Iowa 50309-2721
Phone No: (515) 288-3667
Fax No: (515) 288-1338
CUSTOMER NO: 22885

Attorneys of Record

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